

Remarks

The Office action mailed April 2, 2009, has been reviewed and carefully considered. Claims 1, 3, 11, 14-17, 19, 20, 27, 29, 33, and 34 have been amended. Claims 12 and 13 have been canceled. Entry of these amendments is respectfully requested.

35 U.S.C. §102(b) Rejections

Claims 1-5, 7-25, 27 and 28 have been rejected under 35 U.S.C. §102(b) for alleged anticipation in view of Coscia et al. (U.S. Patent No. 3,494,775). This rejection is traversed for the reasons set forth below.

Independent claims 1, 14, 15, and 19 have been amended to delete “a group IA oxide or hydroxide, or a group IIA oxide or hydroxide.” Claims 1, 14, 15 and 19 now recite “a boron compound.” Coscia et al. does not disclose a boron compound. Accordingly, the 35 U.S.C. §102(b) rejection of claims 1-5 and 7-19 must be withdrawn.

Independent claims 20 and 27 have been amended to specify that the curing agent comprises “a polyalkylene polyamine-epichlorohydrin **resin**” (emphasis added). Coscia et al. repeatedly stresses that the amine-epichlorohydrin condensates are of very low molecular weight - a molecular weight of less than 5,000, preferably less than 2,000 (see column 2, line 69 – column 3, line 29). Claims 20 and 27 has now been amended to further clarify that the component reacted with soy protein is a “resin.” It is well known that the term “resin” designates a polymeric material, and thus claims 20 and 27 do not encompass reacting soy protein directly with low molecular weight condensates as disclosed in Coscia et al. For example, attached as Exhibit 1 is a definition of “synthetic resin” from Hawley’s Condensed Chemical Dictionary, 13th ed. (1997). This definition states that a synthetic resin is “[a] manufactured high polymer resulting from a chemical reaction between two (or more) substances.” Attached as Exhibit 2 is another definition of “resin” from Glossary of Chemical Terms, 2d ed. (1982) corroborating that a resin is a polymer. The commercial products identified on page 5, line 25- page 6, line 2, of the present application are also well known as polymers. Accordingly, the 35 U.S.C. §102(b) rejection of claims 20-25, 27 and 28 must be withdrawn.

Claims 1-5, 10-12, 14-16, 19, 29, 30, 32 and 40 have been rejected under 35 U.S.C. §102(b) for alleged anticipation in view of Gilboe et al. (U.S. Patent No. 3,274,042). Independent claims 1, 14, 15, 19 and 29 have been amended to delete “a group IA oxide or hydroxide, or a group IIA oxide or hydroxide.” Claims 1, 14, 15, 19 and 29 now recite “a boron compound.” Gilboe et al. does not disclose a boron compound. Accordingly, the 35 U.S.C. §102(b) rejection of claims 1-5, 10-12, 14-16, 19, 29, 30, 32 and 40 must be withdrawn.

35 U.S.C. §103 Rejections

Claim 6 has been rejected under 35 U.S.C. §103 for alleged obviousness in view of Coscia et al. combined with Ayorinde et al. (U.S. Patent No. 5,374,670). Ayorinde et al. is relied upon in the Office action for allegedly disclosing a reaction product of an epoxide with a polyamidoamine or a polyamide resin. However, Ayorinde et al. does not disclose a composition that includes a boron compound as recited in claim 1 (from which claim 6 depends) and thus does not cure the above-explained fatal deficiency in Coscia et al.

Claim 26 has been rejected under 35 U.S.C. §103 for alleged obviousness in view of Coscia et al. combined with Bengs et al. (U.S. Patent No. 6,406,530). Bengs et al. is relied upon in the Office action for allegedly disclosing the use of lignin in a protein adhesive composition. However, Ayorinde et al. does not disclose a composition that includes a polyalkylene polyamine-epichlorohydrin resin as recited in claim 20 (from which claim 26 depends) and thus does not cure the above-explained fatal deficiency in Coscia et al.

Claims 7-9, 13, 17, 18, 20-25, 27, 28, 31, 33-38, and 41 have been rejected under 35 U.S.C. §103 for alleged obviousness in view of Gilboe et al. combined with Coscia et al. Dependent claims 7-9 depend from claim 1 which is now directed to a composition that includes a boron compound. Similarly, dependent claims 17 and 18 depend from claim 15 which is now directed to a composition that includes a boron compound. Dependent claims 31 and 33 depend from claim 29 which also is now directed to a composition that includes a boron compound. Neither Gilboe et al. nor Coscia et al. disclose a boron compound, and thus the rejection of all of these dependent claims must also be withdrawn.

Claim 13 has been canceled.

Independent claims 20, 27 and 34 are now directed to a curing agent that comprises a polyalkylene polyamine-epichlorohydrin resin. As explained above, Coscia et al. does disclose such a resin. Accordingly, the obviousness rejection of claims 20, 27 and 34 (and the claims that depend therefrom) must be withdrawn.

Claim 6 has been rejected under 35 U.S.C. §103 for alleged obviousness in view of Gilboe et al. combined with Ayorinde et al.. Ayorinde et al. is relied upon in the Office action for allegedly disclosing a reaction product of an epoxide with a polyamidoamine or a polyamide resin. However, Ayorinde et al. does not disclose a composition that includes a boron compound as recited in claim 1 (from which claim 6 depends) and thus does not cure the above-explained fatal deficiency in Gilboe et al.

Conclusion

It is respectfully submitted that the present application is condition for allowance. Should there be any questions regarding this application, examiner Brunsman is invited to contact the undersigned attorney at the telephone number shown below.

Respectfully submitted,

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